

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1

of 4

**Complete If Known**

Application Number	10/621 326
Filing Date	July 18, 2003
First Named Inventor	Arnold HOFFMAN, et al.
Group Art Unit	
Examiner Name	
Attorney Docket Number	HOFFMAN=9

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
JDA	AA	R. ARAYA et al; "Hypoxia induces apoptosis in human neuroblastoma SK-N-MC cells by caspase activation accompanying cytochrome c release from mitochondria"; <i>FEBS Lett</i> (1990); Vol. 439; pages 168-72; Federation of European Biochemical Societies.	
	AB	J. R. BABSON et al; "Inactivation of glutathione reductase by 2-chloroethyl nitrosourea-derived isocyanates"; <i>Biochem. Biophys. Res. Commun.</i> (1978); Vol. 83; pages 745-762; Academic Press.	
	AC	D. CEN et al; "Disulfiram induces apoptosis in human melanoma cells: a redox-related process"; <i>Molec Cancer Ther</i> (2002); Vol.1; pages 197-204.	
	AD	M.B. COHEN et al; "Characterization of the inhibition of glutathione reductase and the recovery of enzyme activity in exponentially growing murine leukemia (L1210) cells treated with 1,3-bis(2-chloroethyl)-1-nitrosourea." <i>Biochem Pharm</i> (1988); Vol.37; pages 3317-3320; Pergamon Press PLC.	
	AE	D.G. CORNWELL et al; "Cytotoxicity of tocopherols and their quinones in drug-sensitive and multidrug-resistant leukemia cells"; <i>Lipids</i> (1998); Vol. 33; pages 295-301; AOCS Press .	
	AF	J. DAI et al; "Malignant cells can be sensitized to undergo growth inhibition and apoptosis by arsenic trioxide through modulation of the glutathione redox system"; <i>Blood</i> (1999); Vol.93; pages 268-77; The American Society of Hematology.	
	AG	D. L. DUVAL et al; "Regulation of hepatic nitric oxide synthase by reactive oxygen intermediates and glutathione"; <i>Arch Biochem Biophys</i> (1995); Vol. 316; pages 699-706; Academic Press Inc.	
	AH	H. ESTERBAUER et al; "Chemistry and biochemistry of 4-hydroxynonenal, malonaldehyde and related aldehydes"; <i>Free Radic Biol Med</i> (1991); Vol. 11; pages 81-128; Pergamon Press PLC.	
	AI	T. M. GOTTLIEB et al; "p53 in growth control and neoplasia"; <i>Biochim Biophys Acta</i> (1996); Vol.1287; pages 77-102; Elsevier Science B.V.	
	AJ	A. HOFFMAN et al; "Cessation of cell proliferation by adjustment of cell redox potential"; <i>J Theoret Biol</i> (2001); Vol. 211; pages 403-7; Academic Press.	
	AK	D. E. HUTTER et al; "Redox state changes in density-dependent regulation of proliferation"; <i>Exp Cell Res</i> (1997); Vol.232; pages 435-438; Academic Press.	
JDA	AL	C. D. KANG et al; "Activation of c-jun N-terminal kinase/stress-activated protein kinase and the decreased ratio of Bcl-2 to Bax are associated with the auto-oxidized dopamine-induced apoptosis in PC12 cells"; <i>Neurosci. Lett.</i> (1998); Vol. 256; pages 37-40; Elsevier Science.	

Examiner  
Signature

/James Anderson/

Date  
Considered

08/22/2006

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 2

of 4

**Complete if Known**

Application Number	10/621,326
Filing Date	July 18, 2003
First Named Inventor	Arnold HOFFMAN, et al.
Group Art Unit	
Examiner Name	
Attorney Docket Number	HOFFMAN=9

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
JDA	AM	R. KINSCHERF et al; "Induction of mitochondrial manganese superoxide dismutase in macrophages by oxidized LDL: its relevance in atherosclerosis of humans and heritable hyperlipidemic rabbits"; <i>FASEB J</i> (1997); Vol. 11; pages 1317-28.	
	AN	M. KITO et al; "Arsenic Trioxide-Induced Apoptosis and its Enhancement by Buthionine Sulfoximine in Hepatocellular Carcinoma Cell Lines"; <i>Biochemical and Biophysical Research Communications</i> (2002); Vol. 291; pages 861-867; Elsevier Science.	
	AO	T. LAHUSEN et al; "Alsterpaullone, a novel cyclin-dependent kinase inhibitor, induces apoptosis by activation of caspase-9 due to perturbation in mitochondrial membrane potential"; <i>Molec Carcinogen</i> (2003); Vol. 36; pages 183-194.	
	AP	Y. J. LEE et al; "Glucose deprivation-induced cytotoxicity and alterations in mitogen-activated protein kinase activation are mediated by oxidative stress in multidrug-resistant human breast carcinoma cells"; <i>J Biol Chem</i> (1998); Vol. 273; pages 5294-9; The American Society for Biochemistry and Molecular Biology, Inc.	
	AQ	C. J. LI et al; "Potent inhibition of tumor survival in vivo by beta-lapachone plus taxol: combining drugs imposes different artificial checkpoints"; <i>Proc Natl Acad Sci USA</i> . (1999); Vol. 96; pages 13369-74.	
	AR	Y. LI et al; "Selective killing of cancer cells by beta-lapachone: direct checkpoint activation as a strategy against cancer"; <i>Proc Natl Acad Sci USA</i> (2003); Vol. 100; pages 2674-8.	
	AS	G. LIZARD et al; "Glutathione is implied in the control of 7-ketocholesterol-induced apoptosis, which is associated with radical oxygen species production"; <i>FASEB J</i> . (1998); Vol. 12; pages 1651-1663.	
	AT	S. LORD-FONTAINE et al; "Enhancement of cytotoxicity of hydrogen peroxide by hyperthermia in chinese hamster ovary cells: role of antioxidant defenses"; <i>Arch Biochem Biophys</i> (1999); Vol. 363; pages 283-95; Academic Press.	
	AU	A. NICOLE et al; "Direct evidence for glutathione as mediator of apoptosis in neuronal cells"; <i>Biomed Pharmacother</i> (1998); Vol. 52; pages 349-55; Elsevier, Paris.	
	AV	A. G. PASCHKA et al; "Induction of apoptosis in prostate cancer cell lines by the green tea component, (-)-epigallocatechin-3-gallate"; <i>Cancer Lett</i> (1998); Vol. 130; pages 1-7; Elsevier, Paris.	
✓	AW	C. RAMACHANDRAN et al; "Differential sensitivity of human mammary epithelial and breast carcinoma cell lines to curcumin"; <i>Breast Cancer Res Treat</i> (1999); Vol. 54; pages 269-78; Kluwer Academic Publishers.	
JDA	AX	M. M. RIMPLER et al; "Protection against hydrogen peroxide cytotoxicity in rat-1 fibroblasts provided by the oncoprotein Bcl-2: maintenance of calcium homeostasis is secondary to the effect of Bcl-2 on cellular glutathione"; <i>Biochem J</i> (1999); Vol. 340(Pt 1); pages 291-7; Biochemical Society.	

Examiner  
Signature

/James Anderson/

Date  
Considered

08/22/2006

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Complete if Known**

Application Number	10/621,326
Filing Date	July 18, 2003
First Named Inventor	Arnold HOFFMAN, et al.
Group Art Unit	
Examiner Name	
Attorney Docket Number	HOFFMAN=9

Sheet 3 of 4

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
JDA	AY	L. ROSSI et al; "Quinone toxicity in hepatocytes without oxidative stress"; <i>Arch Biochem Biophys</i> (1986); Vol. 251; pages 25-35.	
	AZ	P. K. RUDRA et al; "Acrolein cytotoxicity and glutathione depletion in n-3 fatty acid sensitive- and resistant human tumor cells"; <i>Anticancer Res</i> (1999); Vol. 19; pages 461-9.	
	BA	C.K. SEN et al; "Fas mediated apoptosis of human Jurkat T-cells: intracellular events and potentiation by redox-active alpha-lipoic acid"; <i>Cell Death Differentiation</i> (1999); Vol. 6; pages 481-91; Stockton Press.	
	BB	R. SMAALAND et al; "Glutathione content in human bone marrow and circadian stage relation to DNA synthesis"; <i>J Natl Cancer Inst</i> (1991); Vol. 83; pages 1092-8.	
	BC	A. C. SMITH et al; "Pharmacokinetics of Buthionine Sulfoximine (NSC 326231) and Its Effect on Melphalan-induced Toxicity in Mice"; <i>Cancer Research</i> (1989); Vol. 49; pages 5385-5391.	
	BD	S. TAMRAKAR et al; "Role of pRB dephosphorylation in cell cycle regulation" <i>Frontiers in Bioscience</i> (2000); Vol. 5; pages D121-137.	
	BE	D. E. THORNTON et al; "Antioxidant and cytotoxic tocopheryl quinones in normal and cancer cells"; <i>Free Radic Biol Med</i> (1995); Vol. 18; pages 963-76; Pergamon Press.	
	BF	U. WULLNER et al; "Glutathione depletion and neuronal cell death: the role of reactive oxygen intermediates and mitochondrial function"; <i>Brain Research</i> (1999); Vol. 826; pages 53-62; Elsevier Science B.V.	
	BG	A. YAMAUCHI et al; "Control of cell cycle progression in human natural killer cells through redox regulation of expression and phosphorylation of retinoblastoma gene product protein"; <i>Blood</i> (1997); Vol. 89; pages 4092-4099.	
	BH	A. ZETTERBERG et al; "Kinetic analysis of regulatory events in G1 leading to proliferation or quiescence of Swiss 3T3 cells"; <i>Proc Natl Acad Sci USA</i> (1985); Vol. 82; pages 5365-9.	
	BI	A. ZETTERBERG et al; "Cell cycle progression and cell growth in mammalian cells"; <i>Frontiers in Molecular Biology: Cell Cycle Control</i> (1995); pages 2066-2085; Oxford University Press, Oxford, UK.	
JDA	BJ	A. ZETTERBERG et al; "What is the restriction point?"; <i>Curr Opinion in Cell Biology</i> (1995); Vol. 7; pages 835-42; Current Biology Ltd.	

Examiner  
Signature

/James Anderson/

Date  
Considered

08/22/2006

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

Sheet	4
-------	---

of

4

### Complete if Known

Application Number

10/621.324

Filing Date

July 18, 2003

**First Named Inventor**

**Arnold HOFFMAN, et al.**

### Group Art Unit

**Examiner Name**

Attorney Docket Number

HOFFMAN=9

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

[illegible]

**Examiner  
Signature**

/James Anderson/

Date Considered

08/22/2006

\* **EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



Under the Paperwork Reduction Project of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

PTO/SB/08b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Project of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

Sheet	1	of	1
-------	---	----	---

**Complete if Known**

Application Number	Not Yet Assigned	10/02/22/2
--------------------	------------------	------------

Filing Date	July 18, 2003
-------------	---------------

First Named Inventor	Arnold HOFFMAN, et al.
----------------------	------------------------

### Group Art Unit

**Examiner Name**

Attorney Docket Number	HOFFMAN=9
------------------------	-----------

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
--------------------	-----------	--

T<sub>2</sub>

**JDA**

BL

F. Q. SCHAFFER et al; "Redox environment of the cell as viewed through the redox state of the glutathione disulfide/glutathione couple"; *Free Rad Biol Med* (2001); Vol. 30; pages 1191-212.

**Examiner  
Signature**

/James Anderson/

Date Considered

08/22/2006

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

MAR 16 2004

PTO/SB/08a (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 2

**Complete if Known**

Application Number	10/621,326
Filing Date	July 18, 2003
First Named Inventor	Arnold HOFFMAN
Group Art Unit	1614
Confirmation Number	2518
Attorney Docket Number	HOFFMAN=9

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
JDA	BM	US-6,589,987 B2	07-08-2003	KENNEDY	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Number Country Code* Number* Kind Code* (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>

Examiner  
Signature

/James Anderson/

Date  
Considered

08/22/2006

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.18 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/APTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>	
Application Number		10/621,326	
Filing Date		July 18, 2003	
First Named Inventor		Arnold HOFFMAN	
Group Art Unit		1614	
Confirmation Number		2518	
Attorney Docket Number		HOFFMAN=9	

[illegible]

Examiner Signature	/James Anderson/	Date Considered	08/22/2006
-----------------------	------------------	--------------------	------------

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.